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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,682	10/05/2001	Jerome Fournier	Q66648	1857

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EXAMINER

GRAY, JILL M

ART UNIT PAPER NUMBER

1774

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/970,682

Applicant(s)

FOURNIER ET AL.

Examiner

Jill M. Gray

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

The rejection of claims 1-2, 4, 9-10, and 12 under 35 U.S.C. 102(e) as being anticipated by Terry et al, 6,329,488 B1 is withdrawn in view of applicants' arguments.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-7, 10, 12, 17-18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Podola et al, 5,525,654 (Podola).

Podola teaches a composition comprising a copolymer obtained from polyurethane and at least one alkoxysilane and a mineral filler, per claims 1 and 2. See abstract and column 6, lines 44-48. The alkoxysilane can be an aminopropyl-trimethoxysilane as required by applicants in claims 4 and 17, and the mineral filler can be silicates or titanium dioxide, per claims 5-6 and 18, and is present in amounts within applicants' range as set forth in claims 7 and 20. See column 6, line 46 and Example 6. Also, Example 6 reflects a method of manufacturing a composition wherein polyurethane is copolymerized with an alkoxysilane using dibutyl tin dilaurate as a catalyst and a mineral filler is added, as required by claims 10 and 12.

Therefore, the prior art teachings of Podola anticipate the invention as claimed in present claims 1-2, 4-7, 10, 12, 17-18, and 20.

Art Unit: 1774

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Podola et al, 5,525,654, (Podola) as applied above to claims 1-2, 4-7, 10, 12, 17-18, and 20.

Podola is as set forth above but does not specifically teach clays or mica as his filler. In this concern, Podola teaches that fillers such as chalk, lime flour, silica, aluminum silicates, ground minerals and other inorganic fillers familiar to the expert can be used. It is the position of the examiner that this teaching would have provided a suggestion to the skilled artisan that other inorganic fillers such as clay or mica could be used commensurate with the desired properties in the end property, such as adding mica for intumescent purposes. Moreover, since Podola teaches that typical additives can be included according to the particular application, it is the examiner's position that the specific silicates of claim 19 constitutes no more than a preferential selection of one typical inorganic filler additive from among many, said additive being selected for its art recognized purpose and desired particular application. Also, there is no factual evidence of record of superior or unexpected properties directly related to the specific mineral filler. Therefore, it would have been obvious to use as the mineral filler a silicate of the type contemplated by applicants.

Claims 1-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaopo et al, 4,769,287 (Zaopo) in view of Keane et al, 4,503,124 (Keane), for reasons of record.

Zaopo, as set forth previously, teaches an insulating material and insulated cable comprising a thermosetting or thermoplastic resin and an silanic monomer as required by claims 1 and 10. See abstract. The resin can be polyester or polyimide as required by claim 2 and the silanic monomer is an alkoxysilane such as a trimethoxysilane, per claims 4 and 17 and is added in amounts within applicants range as set forth in claims 3 and 16. See column 2, lines 10-22 and Examples. In addition, Zaopo teaches that his reaction is performed in the presence of a catalyst such as dibutyl tin, as required by claim 12, and the application of his composition as insulation or sheath to a conductor wire, per claims 9 and 13-14. See Example IV. As to the solvent of claim 11, it is the position of the examiner that the particular solvent is not a result effective component in the process of making the composition, and the selection of one solvent from among many is construed to be no more than a preferential selection by the skilled artisan, absent factual evidence to the contrary. It is always obvious to choose and determine the solvents best suited for the polymer resin of choice, requiring no more than routine experimentation. Zaopo does not teach the incorporation of mineral filler. Keane, also as set forth previously, teaches wire enamel composition for insulated cables comprising thermosetting or thermoplastic resin having mineral filler incorporated therein. The resins and mineral filler are each of the type contemplated by applicants in claims 2 and 5. See abstract. In addition, Keane teaches that the mineral filler can be

added in amounts ranging from 1% to about 35% by weight, which is within applicants' range as set forth in claims 7 and 20. See column 2, lines 19-20. As to the specific surface area of the alumina, Keane is silent as to this property. However, this limitation is related to the size and shape of the particles, wherein changes in size and shape are ordinarily not a matter of invention.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Zaopo by adding a mineral filler of the type contemplated by Keane in order to impart corona resistant properties to the resultant insulated cable. As to the coil and winding wire of claims 14 and 15, the prior art teaches the formation of wires and cables. Therefore, it would have been obvious to choose the specific wire substrate commensurate with the desired end use.

### ***Response to Arguments***

Applicant's arguments filed March 9, 2004 have been fully considered but they are not persuasive.

Applicants argue that Zaopo is not the closest prior art with respect to claim 1 since the present invention belongs to the field of winding wires aimed at withstanding partial discharges and Zaopo is entirely silent about the resistance to partial discharge of the varnish it discloses.

In response thereto, this limitation is not in the claims, nor are the claims limited to a winding wire.

Applicants argue that the main difference between Keane and the invention as claimed in claim 1 is that Keane's polymer resin is not a copolymer of a thermoplastic or

Art Unit: 1774

thermosetting resin with an alkoxysilane and the claimed invention proposes to replace the standard polymer of Keane with a copolymer of a thermoplastic or thermosetting resin and an alkoxysilane.

In this concern, it is not the teachings of Keane individually that the examiner has relied upon, rather, what the combined teachings of Zaopo and Keane would have fairly suggested to one of ordinary skill in the art at the time the invention was made. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicants argue that the skilled artisan would never look into the general prior art related to varnishes that do not deal with partial discharge phenomenon and therefore, the skilled artisan would not find Zaopo, which, even though it may deal with varnishes for wire, is entirely silent about the behavior of such varnishes in the presence of partial discharges.

As set forth previously, this limitation is not in the claims. In response to applicant's argument that Zaopo is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re*

*Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Zaopo teaches a composition having high temperature resistance.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-F 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jill M. Gray  
Examiner  
Art Unit 1774

*JMG*

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